

REMARKS/ARGUMENTS

Claims 9-22 are active. The claims have been revised for clarity and conformance to U.S. practice. Claims 9-14 find support as follows: Claims 9-12 (claims 1-3), claim 13 (page 22, line 9) and claim 14 (page 14, last full paragraph). Claims 18-19 find support on pages 17-18. Method claims 15-17 and 20-22 find support at least on page 16, lines 7-9. No new matter has been added. Favorable consideration of this amendment and allowance of the application are respectfully requested.

Rejection—35 U.S.C. §103(a)

Claims 1-3 and 6-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wagon, et al., JP2003-040785, in view of Japan Food Additive Assoc.(web link, 1999). This rejection is moot in view of the cancellation of the prior claims and would not apply to the new claims for the following reasons.

Wagon does not disclose all the elements of the invention, namely, *Aureobasidium* β -1,3-1,6-glucan. Wagon is cited as disclosing the combination of β -glucan from various sources (including bacteria, fungi and yeasts, [0024]) and heat-treated *Enterococcus faecalis*. The Official Action indicates that no patentable weight has been given to the source of the β -1,3-1,6-glucan, however, it is well known in the microbiological and biochemical arts that beta glucans from different organisms have different chemical structures and functional properties.

To show the functional differences between the β -1,3-1,6-glucan from *Aureobasidium* and the β -1,3-1,6-glucan from *Agaricus blazei* Murill disclosed by Wagon (see Abstract, Example [0036]), the Applicants attach herewith the Declaration of Koji Kubota. As shown by the Declaration β -1,3-1,6-glucan from different source organisms have different viscosities and exhibit different functional properties. For example, as summarized in the

Table on page 8 of the Declaration the β -1,3-1,6-glucan from *Aureobasidium pullulans* according to the invention has a much higher viscosity than that of the β -1,3-1,6-glucan of Wagon. Moreover, the composition according to the invention provided a uniform dispersion of bacterial cells unlike compositions using the β -1,3-1,6-glucan of Wagon.

While claim 1 of Wagon generally refers to “beta-glucan”, Wagon provides no suggestion to specifically select *Aureobasidium* β -1,3-1,6-glucan, nor does it provide a reasonable expectation of success for the higher viscosity and ability to produce a uniform bacterial suspension containing both *Aureobasidium* β -1,3-1,6-glucan and heat-killed enterobacteria. The uniformity of the composition of the invention provides a convenience and safety of administering the two active ingredients not recognized by the prior art.

The secondary reference (Japan Food Association table) was cited as disclosing *Aureobasidium pullulans* β -1,3-1,6-glucan which is used as a thickener or stabilizer and reported to activate the immune system. However, like Wagon, it provides no suggestion to specifically select *Aureobasidium* β -1,3-1,6-glucan, nor does it provide a reasonable expectation of success for the superior bacterial-glucan dispersion of the invention or other functional properties of the invention. Accordingly, this rejection would not apply to the new claims.

Rejection—35 U.S.C. §103(a)

Claims 1-3 and 6-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keiichiro, JP 2001-048796, in view of Japan Food Additive Assoc.(web link, 1999). This rejection is moot in view of the cancellation of the prior claims. It does not apply to the new claims because it does not disclose, suggest or provide a reasonable expectation of success for the superior functional properties of the invention, such as the provision of a uniform dispersion of bacterial cells in a more viscous form. These superior properties are shown by

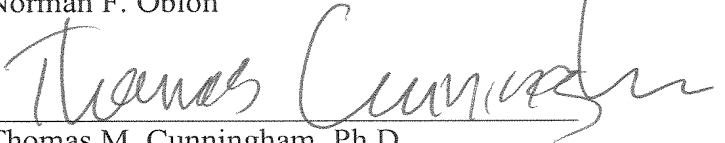
the attached Declaration of Koji Kubota which is discussed above. Accordingly, this rejection would not apply to the new claims.

Conclusion

This application presents allowable subject matter and the Examiner is respectfully requested to pass it to issue. The Examiner is kindly invited to contact the undersigned should a further discussion of the issues or claims be helpful.

Respectfully submitted,

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